Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1-30. **(Canceled)**

31. **(Withdrawn - Currently Amended)** A method for crystallizing [[a]] Hepatitis C virus helicase ~~molecule or molecular complex~~ comprising growing a crystal from a precipitant solution comprising purified Hepatitis C virus helicase, about 3% by weight to about 14% by weight PEG, about 5% by weight to about 15% by weight DMSO, and about 0.05M to about 0.07M potassium phosphate, wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1.

32-34. **(Canceled)**

35. **(Withdrawn - Currently Amended)** A method for crystallizing [[a]] Hepatitis C virus helicase ~~molecule or molecular complex~~ comprising growing a crystal by vapor diffusion with macro-seeding from a precipitant solution comprising purified Hepatitis C virus helicase, HEPES, and about 4% by weight to about 14% by weight mono-alkyl ether of PEG, wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1.

36-37. **(Canceled)**

38. **(Original)** Crystalline Hepatitis C virus helicase comprising a tetragonal crystal having unit cell dimensions of $a = b = 109$ Å $\pm$ 3 Å; $c = 84$ Å $\pm$ 2 Å; $\alpha = \beta = \gamma = 90°$; and space group $P4_1$; the unit cell containing two molecules in an asymmetric unit.

39. **(Previously Presented)** The crystalline Hepatitis C virus helicase of claim 38 wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1.

40. **(Original)** Crystalline Hepatitis C virus helicase comprising an orthorhombic crystal characterized by unit cell dimensions of a = 66 Å ± 2 Å; b = 110 Å ± 3 Å; c = 64 Å ± 2 Å; $\alpha = \beta = \gamma = 90°$; and a space group $P2_12_12$; the unit cell containing one molecule in the asymmetric unit.

41. **(Previously Presented)** The crystalline Hepatitis C virus helicase of claim 40 wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1.

42. **(Currently Amended)** Crystalline Hepatitis C virus helicase having amino acid sequence SEQ ID NO:1, wherein the crystalline Hepatitis C virus helicase effectively diffracts x-rays to a resolution of 1.5 Å to 3 Å.

43. **(Currently Amended)** A composition comprising crystalline Hepatitis C virus helicase of any of claims 38-41 ~~claims 38-42~~.

44-46. **(Canceled)**

47. **(Withdrawn - Currently Amended)** A method for incorporating a chemical entity in a crystal comprising placing a tetragonal crystal of Hepatitis C virus helicase having unit cell dimensions of a = b = 109 Å ± 3 Å; c = 84 Å ± 2 Å; $\alpha = \beta = \gamma = 90°$; the unit cell containing two molecules in an asymmetric unit; and space group $P4_1$ in an aqueous solution comprising about 1mM to about 10mM chemical entity, and 0% by weight to about 15% by weight DMSO.

48. **(Withdrawn - Currently Amended)** A method for incorporating a chemical entity in a crystal comprising placing an orthorhombic crystal of Hepatitis C virus helicase having unit cell

dimensions of a = 66 Å ± 2 Å; b = 110 Å ± 3 Å; c = 64 Å ± 2 Å; α = β = γ = 90°; the unit cell containing one molecule in the asymmetric unit; and a space group $P2_12_12$ in an aqueous solution comprising about 1mM to about 10mM chemical entity, and 0% by weight to about 15% by weight DMSO.

49. **(Currently Amended)** Crystalline Hepatitis C virus helicase wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1, and wherein the crystalline Hepatitis C virus helicase effectively diffracts x-rays to a resolution of 1.5 Å to 3 Å.

50. **(Currently Amended)** A crystal of Hepatitis C virus helicase, wherein the Hepatitis C virus helicase comprises amino acid sequence SEQ ID NO:1, and wherein the crystal effectively diffracts x-rays to a resolution of 1.5 Å to 3 Å.

51. **(Currently Amended)** A crystal of Hepatitis C virus helicase, wherein the Hepatitis C virus helicase comprises amino acid sequence SEQ ID NO:1, with the proviso that at least one cysteine or methionine is replaced with selenocysteine or selenomethionine, respectively, and wherein the crystal effectively diffracts x-rays to a resolution of 1.5 Å to 3 Å.

52. **(Currently Amended)** A crystal of Hepatitis C virus helicase, wherein the Hepatitis C virus helicase consists of amino acid sequence SEQ ID NO:1, and wherein the crystal effectively diffracts x-rays to a resolution of 1.5 Å to 3 Å.

53. **(Previously Presented)** A crystal of Hepatitis C virus helicase comprising a unit cell having dimensions of a = b = 109 Å ± 3 Å; c = 84 Å ± 2 Å; α = β = γ = 90°; and space group $P4_1$; the unit cell containing two molecules in an asymmetric unit.

54. **(Previously Presented)** A crystal of Hepatitis C virus helicase comprising a unit cell having dimensions of a = 66 Å ± 2 Å; b = 110 Å ± 3 Å; c = 64 Å ± 2 Å; $\alpha = \beta = \gamma = 90°$; and a space group $P2_12_12$; the unit cell containing one molecule in the asymmetric unit.

55. **(Previously Presented)** A crystal of Hepatitis C virus helicase comprising atoms arranged in a spatial relationship represented by the structure coordinates listed in Table 1.

56. **(Previously Presented)** A crystal of Hepatitis C virus helicase comprising atoms arranged in a spatial relationship represented by the structure coordinates listed in Table 2.

57. **(Previously Presented)** A crystal of Hepatitis C virus helicase comprising atoms arranged in a spatial relationship represented by the structure coordinates listed in Table 3.

58. **(Currently Amended)** A crystal of Hepatitis C virus helicase prepared by a method comprising growing a crystal from a precipitant solution comprising purified Hepatitis C virus helicase, about 3% by weight to about 14% by weight PEG, about 5% by weight to about 15% by weight DMSO, and about 0.05M to about 0.07M potassium phosphate, wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1.

59. **(Currently Amended)** A crystal of Hepatitis C virus helicase prepared by a method comprising growing a crystal by vapor diffusion with macro-seeding from a precipitant solution comprising purified Hepatitis C virus helicase, HEPES, and about 4% by weight to about 14% by weight mono-alkyl ether of PEG, wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1.

60. **(New)** A crystal of Hepatitis C virus helicase, wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1, and wherein the crystal is about 0.12 x 0.12 x 0.05 mm in size.

61. **(New)** A crystal of Hepatitis C virus helicase, wherein the amino acid sequence of the Hepatitis C virus helicase is SEQ ID NO:1, and wherein the crystal is about 0.4 x 0.4 x 0.2 mm in size.